Attorney's Docket: 1999DE132
Serial No.: 09/722,760
Group: 1756

REMARKS

The Office Action mailed August 10, 2004, has been carefully considered together with each of the references cited therein. The amendments and remarks presented herein are believed to be fully responsive to the Office Action. The amendments made herein are fully supported by the Application as originally filed. No new matter has been added. Accordingly, reconsideration of the present Application in view of the above amendments and following remarks is respectfully requested.

Claim Status

Claims 1, 4-10, 16, 17, 22 and 23 are pending in this Application. Claims 4, 9, 10 and 17 are withdrawn from consideration. By this Amendment, Applicants have amended claims 1 and 5 and added new claim 24. Claim 16 has been cancelled. Consequently, the claims under consideration are believed to include claims 1, 5-8 and 22-24.

Claim rejections under 35 USC § 112, Second Paragraph

Claims 5 and 16 stand rejected under 35 USC § 112, second paragraph as being indefinite. Specifically, the Office finds claim 5 indefinite for failure to properly recite Markush language. Claim 5 has been amended to recite proper Markush language.

Claim 16 is found indefinite for use of the phrase "wherein the ammonium ion is. . .". Claim 16 has been cancelled.

In view of the forgoing, it is respectfully contended that the 35 USC § 112, second paragraph rejection has been overcome.

Claim Objection

Claim 5 stands objected to as the Office states that "background lines run width-wise across the pages 3 and 4 of the amendments to the claims and such

lines obscure part of the chemical formulas disclosed at pages 3 and 4." This Amendment is believed to overcome such objection as it includes a new listing of the claims.

Claim 5 also stands objected to as having incorrectly drawn bonds. Such error has been corrected.

In view of the above, the objections to claim 5 are believed overcome.

Claim Rejection Under 35 USC § 103(a)

Claims 1, 5-8, 16, 22 and 23 stand rejected under 35 USC § 103(a) as being unpatentable over Japanese Patent 8-6295 (JP' 295) combined with US 3,925,278 (Murai), US 4,992,262 (Nakagaki), and US 5,385,776 (Maxfield). This rejection is respectfully traversed.

Applicants invention, as defined by the amended claims, is directed to a method of imparting, controlling or improving the charge of an electrophotographic toner or developer or electret material comprising the step of adding, as a control agent, a structured silicate salt having the chemical characteristics as recited in claim 1.

The JP'295 reference discloses a charge controlling agent composition having two main constituents; a charge control agent and a specific extender (paragraph 0014). The charge control agent recited in JP '295 is a quaternary ammonium salt (paragraph 00016). This is the only charge control agent disclosed by JP'295. The extender as recited in paragraph 00015 can include kaolin, talc and bentonite. There is no disclosure, teaching or suggestion in JP'295 that a structured silicate salt can be used as a charge control agent. Moreover, the remaining references employed by the Office in its § 103 rejection likewise do not contain any teaching, disclosure or suggestion that a structured silicate salt can be used as a charge control agent.

The Office, in justifying its § 103 rejection, states as follows:

> Neither JP'295, nor the other cited references identified organic bentonite or BENTONE 34 as a charge control agent as recited in the instant claims. However, as discussed above, JP'295 shows that the addition of organic bentonite to its charge controlling agent improves or controls the charge of the toner. Furthermore, BENTONE 34 meets the compositional limitation of "distearyldimethyl ammonium bentonite" as recited in instant claim 22 and the compositional limitation of the structured silicate salt containing a low molecular weight organic cation as recited in instant claims 1, 5-8, 16 and 23. Thus, it is reasonable to presume that BENTONE 34 has the charge controlling properties recited in the instant claims. The burden is on applicants to prove otherwise. In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Applicants courteously continue to be of the position that the cited references do not make obvious Applicants' claimed method of using the structured silicate salt as a charge control agent, as detailed in the previous amendment mailed July 9, 2004. Furthermore, Applicants respectfully contend that the Office is erroneously employing the concept of inherency in the context of a § 103 rejection. Applicants' position is buttressed by an examination of In re Shetty, 195 USPQ 753 (C.C.P.A. 1977).

In In re Shetty, the applicant claimed a composition of certain compounds and a method of using them to curb appetite in animals. The prior art was alleged to teach structurally similar compounds for use as antiviral agents with dosages that corresponded with those claimed by the applicant. The PTO argued that administering the prior art compound in a dosage described in the art for antiviral effectiveness, which corresponded to applicant's appetite curving amount, would inherently achieve appetite curbing and thus render claimed method obvious. The Court refused to embrace the PTO's position stating that although applicant's dosage "effective to curve appetite corresponds to or inheres in the [the prior art] amount to "combat microbial infestation, [it] does not persuade us of the obviousness of [applicant's] method." Id. at 756. In holding applicant's method patentable the Court stated on page 757:

> Prior to [applicant's] disclosure none of the adamantane compounds in any of the references before us suggest that a use, much less a dosage, for curbing appetite. What we said In Re Spormann, 53 CCPA 1375, 1380,363 F.2d 444,448,150 USPQ 449,452 (1966), relative to inherency applies equally here:
>
> As we pointed out In Re Adams, 53 CCPA 996,356 F.2d 998,148 USPQ 742 [(1966)] the inherency of an advantage and its obviousness are entirely different questions. That which maybe inherent is not necessarily known. Obviousness can not be predicated on what is unknown. (underlining added)

Here, the issue comports with the rational of In Re Shetty. Before Applicants' disclosure, the prior art failed to disclose, teach, or suggest the use of a structured silicate salt as a charge control agent. As Applicants are claiming a method for improving the charge of a material using the structured silicate salt as a charge control agent, the prior art can not make obvious such a claimed method, as the prior art does not recognize the structured silicate salt as a charge control agent. As stated in In Re Shetty, "obviousness can not be predicted on what is unknown." In the instant application, what is unknown, and Applicants have discovered, is the use of a structured silicate salt as a charge control agent. As the prior art can not provide the motivation to make the combination as detailed by the Office, it follows that the Office's position is predicated upon the use of impermissible hindsight gained by a knowledge of Applicants' invention. Applicants' courteous position, therefore, is that the claims of the present invention are not made obvious by the cited references, alone or in combination.

Claims 1, 7, 8, 16 and 23 stand rejected under 35 USC § 103(a) as being unpatentable over Canadian Patent 2,244,367 (CA' 367). This rejection is respectfully traversed.

Independent claim 1 has been amended to recite that the cation is a low molecular weight, "nonpolymeric" organic cation or a combination of a low molecular weight, "nonpolymeric" organic cation with NH_4 ..." .

The IPEC compound recited in CA '367, as stated by the Office, discloses that the polycation-forming compound can be a "polymeric ammonium salt". As disclosed on page 9, line 20 of the Applicants' specification, the term "low molecular weight" means "nonpolymeric." For purposes of clarity, this language of a "nonpolymeric" cation has been added to independent claim 1.

As the IPEC compound of the CA'367 reference discloses a polymeric cations, it can not teach, disclose, or suggest Applicants' invention. Furthermore, there is no motivation for one with ordinary skill in the art to modify CA '367 reference to include a nonpolymeric cation in the charge control agent as the reference provides absolutely no motivation to do so and would require the ordinary artisan to abandon the express teachings of CA '367.

For at this reason, it is respectfully contended that claims 1, 7, 8, 16 and 23 are not made obvious by CA'367.

For all the foregoing reasons, it is respectfully contended that the 35 USC § 103 rejections have been traversed and therefore, Applicants' respectfully request reconsideration and withdrawal of the rejection.

Moreover, although Applicants assert that the present claims are patentable over the relied upon references without any showing of advantage, the enclosed §132 Declaration by Dr. Michael clearly shows that the organic bentonite according to the invention results in a significantly higher negative charge compared to the closest prior art. Specifically, a composition according to the present invention was compared against JP'295, Table 1 and Example section 0052, CCA composition 4, wherein an alkylated ammonium molybdate acts as a charge control agent and an organic bentonite is present to improve dispersability (acts as an extender).

The effects of the present invention are both unexpected and superior in comparison to the prior art, as no where in the prior art it is disclosed that a structured silicate salt can act alone as a charge control agent or that a high negative charge can be obtained by the use of a structured silicate salt as a charge

control agent. Therefore, for this additional reason, the presently claimed invention is patentable over the relied upon references.

Obviousness Type Double Patenting

Claims 1, 7, 8, 16 and 23 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1- 8 of US Patent No. 6,030,738 (Michael '738). This rejection is respectfully traversed.

As the '738 Patent is the corresponding US patent for the CA'367 patent, for at least the reason advanced with respect to the § 103 rejection in view of CA'367, it is respectfully contended that the claims as amended are not obvious in view of claims 1-8 of the '738 Patent. Consequently, Applicants respectfully request reconsideration and withdrawal of the obviousness-type double patenting rejection.

Attorney's Docket: 1999DE132
Serial No.: 09/722,760
Group: 1756

In view of the forgoing amendments and remarks, the present Application is believed to be in condition for allowance, and reconsideration of it is requested. If the Examiner disagrees, she is requested to contact the attorney for Applicants at the telephone number provided below.

Respectfully submitted,

Anthony A. Bisulca
Attorney for Applicant
Registration No. 40,913

(CUSTOMER NUMBER 25,255)

Clariant Corporation
Industrial Property Department
4000 Monroe Road
Charlotte, North Carolina 28205
Phone: (704) 331-7151
Fax: (704) 331-7707